

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently Amended) A method for the analysis of a sample comprising:

(a) applying said sample to a deposited continuous thin film by either adsorption or directly to a surface of said deposited continuous thin film, said deposited continuous thin film having a desired tailored morphology, said deposited continuous thin film being substantially void free;
and

(b) analyzing said sample by light desorption/ionization mass spectroscopy.

2. (Previously Amended) A method according to claim 1, wherein said sample is selected from the group consisting of organic chemical compositions, inorganic chemical compositions, biochemical compositions, drugs, drug metabolites, cells, cell material, micro-organisms, peptides, polypeptides, proteins, lipids, carbohydrates, nucleic acids, and combinations thereof.

3. (Previously Amended) A method for sample analysis according to claim 2, further comprising obtaining said sample from the group consisting of: a fluidic system, a microfluidic system, a nanofluidic system, a micro chromatographic system, a nano chromatographic system, a high-throughput isolation and preparation system, and combinations thereof.

4-5 (Canceled)

6. (Previously Amended) A method according to claim 1, wherein said deposited thin film selected from the group consisting of: : silicon, germanium, carbon, hydrogen and mixtures thereof.

7. (Previously Amended) A method according to claim 1, wherein the material used as said deposited continuous thin film is selected using criteria selected from the group consisting of light reflection, optical absorption, species absorption, analyte adsorption, ambient adsorption, analyte drying, and combinations thereof.

8. (Canceled)

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9. (Canceled)

10. (Previously Amended) A method according to claim 1, further comprising, physically or chemically modifying, surface functionalizing, or patterning said continuous thin film prior to analyzing said sample.

11. (Previously Amended) A method according to claim 10, wherein patterning said continuous thin film is by: lithography comprising photolithography, probe, contact printing, imprinting, soft lithography; stamping; screen masking; printing or physically modifying said film or a subsequently positioned sample.

12. (Previously Amended) A method according to claim 10 wherein said physically or chemically modifying comprises reaction with or adherence with organic or inorganic compounds, cells, cell components, tissues, microorganisms and combinations thereof.

13. (canceled)

14. (Previously Amended) A method according to claim 1, wherein analyzing said sample is by laser desorption-ionization mass spectroscopy.

15. (Previously Amended) A method according to claim 1, wherein prior to analyzing said sample, a signal enhancing agent is integrated with said sample.

16. (Previously Amended) A method according to claim 15 wherein said signal enhancing agent is ammonium citrate.

17. (Previously Amended) A method according to claim 1, wherein applying said sample to said continuous thin film is by either (a) absorbing from a solid, liquid or gas; or (b) directly applying to the surface of said deposited continuous thin film as a solid or liquid, or combination thereof.

El 18. (Previously Amended) A method according to claim 17 wherein said sample is obtained from a separation means selected from at least one of the group consisting of: chemical, physical, and electrical separation means.

19. (Previously Amended) A method according to claim 18 wherein said separation means is selected from at least one of the group consisting of: liquid chromatography, gas chromatography, deposited thin film chromatography, size exclusion chromatography, affinity chromatography, gel electrophoresis, capillary or micro-capillary electrophoresis, and blotting.

20 - 21 (Canceled)

22 - 65 (~~Withdrawn~~)

66. (Previously Amended) A method according to claim 1, wherein said deposited continuous thin film is deposited on a substrate selected from the group consisting of silicon,

semiconductors, insulators, glasses, plastics, polymers, metals, ceramics, and combinations thereof.

67. (Previously Added) A method according to claim 1, wherein said deposited continuous thin film is deposited by chemical vapor deposition, physical vapor deposition, plasma enhanced chemical vapor deposition, hot wire deposition, nebulization, evaporation, sputtering, casting, spin coating, and combinations thereof.

68. (Canceled)

69. (Previously Added) A method according to claim 2, wherein said sample is a gas, liquid, solid, or combination thereof found in the general indoor environment, general outdoor environment, a process environment, and equipment environment.

70. (Previously Added) A method according to claim 2, wherein said sample is a cell, plurality of cells, tissue, components thereof, and combinations thereof.

71-118 (Canceled)

119. (New) An apparatus for analyzing a sample by light desorption/ionization mass spectroscopy, the apparatus comprising:

a deposited continuous thin film, said deposited continuous thin film having a desired tailored void free morphology; the sample being applied to said deposited continuous thin film;

wherein the sample is analyzed by light desorption/ionization mass spectroscopy.

120. (New) The apparatus of claim 119, wherein said sample is selected from the group consisting of organic chemical compositions, inorganic chemical compositions, biochemical

compositions, drugs, drug metabolites, cells, cell material, micro-organisms, peptides, polypeptides, proteins, lipids, carbohydrates, nucleic acids, and combinations thereof.

121. (New) The apparatus of claim 119, wherein said deposited thin film is selected from the group consisting of: silicon, germanium, carbon, hydrogen and mixtures thereof.

122. (New) The apparatus of claim 119, wherein a material used as said deposited continuous thin film is selected using criteria selected from the group consisting of light reflection, optical absorption, species absorption, analyte adsorption, ambient adsorption, analyte drying, and combinations thereof.

123. (New) The apparatus of claim 119, wherein said deposited continuous thin film is deposited on a substrate selected from the group consisting of silicon, semiconductors, insulators, glasses, plastics, polymers, ceramics, and combinations thereof.

124. (New) The apparatus of claim 119, wherein said deposited continuous thin film is deposited by chemical vapor deposition, physical vapor deposition, plasma enhanced chemical vapor deposition, evaporation, and combinations thereof.
